

<b>TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A FILING UNDER 35 U.S.C. 371</b>		ATTORNEY'S DOCKET NUMBER <b>082368-004400US</b>
INTERNATIONAL APPLICATION NO. <b>PCT/JP03/14909</b>	INTERNATIONAL FILING DATE <b>November 21, 2003</b>	U.S. APPLICATION NO. (If known, see 37 CFR 1.5) <b>107536,935</b>
TITLE OF INVENTION <b>METHOD OF SCREENING FOR COMPOUNDS THAT INHIBIT THE ENZYMATIC ACTIVITY OF GWT1 GENE PRODUCT</b>		PRIORITY DATE CLAIMED <b>November 22, 2002</b>
APPLICANT(S) FOR DO/EO/US <b>Kappei TSUKAHARA; Mamiko TSUCHIYA; Yoshifumi JIGAMI; Kenichi NAKAYAMA; Mariko UMEMURA; and Michiyo OKAMOTO</b>		

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1. ☐ This is a **FIRST** submission of items concerning a submission under 35 U.S.C. 371.
2. ☒ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a submission under 35 U.S.C. 371.
3. ☐ This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) indicated below.
4. ☐ The US has been elected (Article 31).
5. ☐ A copy of the International Application as filed (35 U.S.C. 371(c)(2))
  - a. ☐ is attached hereto (required only if not communicated by the International Bureau).
  - b. ☐ has been communicated by the International Bureau.
  - c. ☐ is not required, as the application was filed in the United States Receiving Office (RO/US).
6. ☐ An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)).
  - a. ☐ is attached hereto.
  - b. ☐ has been previously submitted under 35 U.S.C. 154(d)(4).
7. ☐ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))
  - a. ☐ are attached hereto (required only if not communicated by the International Bureau).
  - b. ☐ have been communicated by the International Bureau.
  - c. ☐ have not been made; however, the time limit for making such amendments has NOT expired.
  - d. ☐ have not been made and will not be made.
8. ☐ An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).
9. ☒ An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)) - in two parts: 1) executed by Inventors Tsukahara and Tsuchiya; and 2) executed by Inventors Jigami, Nakayama, Umemura and Okamoto.
10. ☐ An English language translation of the annexes of the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).

**Items 11 to 20 below concern document(s) or information included:**

11. ☒ An Information Disclosure Statement under 37 CFR 1.97 and 1.98.
12. ☐ An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
13. ☐ A preliminary amendment.
14. ☒ An Application Data Sheet under 37 CFR 1.76.
15. ☐ A substitute specification.
16. ☒ A power of attorney and/or change of address letter.
17. ☒ A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 37 CFR 1.821 - 1.825.
18. ☐ A second copy of the published International Application under 35 U.S.C. 154(d)(4).
19. ☐ A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4).


U.S. APPLICATION NO. (if known, see 37 CFR 1.5) <b>10/536,935</b>		INTERNATIONAL APPLICATION NO. <b>PCT/JP03/14909</b>		ATTORNEY'S DOCKET NUMBER <b>082368-004400US</b>	
20. Other items or information: Express Mail Label No.: <b>EV 566969831 US</b> ; Submission of Substitute Sequence Listing; paper copy of the Sequence Listing; English Translation of the International Preliminary Report on Patentability; copy of the International Search Report; and copies of cited references.					
The following fees have been submitted				<b>CALCULATIONS PTO USE ONLY</b>	
21. <input type="checkbox"/> Basic national fee (37 CFR 1.492(a)) ..... <b>\$300</b>				\$	
22. <input type="checkbox"/> Examination fee (37 CFR 1.492(c))				\$	
If the written opinion prepared by ISA/US or the international preliminary examination report prepared by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4)..... <b>\$0</b>					
All other situations ..... <b>\$200</b>					
23. <input type="checkbox"/> Search fee (37 CFR 1.492(b))					
If the written opinion of the ISA/US or the international preliminary examination report prepared by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4)..... <b>\$0</b>					
Search fee (37 CFR 1.445(a)(2)) has been paid on the international application to the USPTO as an International Searching Authority ..... <b>\$100</b>					
International Search Report prepared by an ISA other than the US and provided to the Office or previously communicated to the US by the IB ..... <b>\$400</b>				\$	
All other situations ..... <b>\$500</b>					
<b>TOTAL OF 21, 22 and 23 =</b>				\$	
<input type="checkbox"/> Additional fee for specification and drawings filed in paper over 100 sheets (excluding sequence listing in compliance with 37 CFR 1.821(c) or (e) or computer program listing in an electronic medium) (37 CFR 1.492(j)). The fee is <b>\$250</b> for each additional 50 sheets of paper or fraction thereof.					
Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof (round up to a whole number)	RATE		
- 100 =	/50 =		x \$250	\$	
Surcharge of <b>\$130.00</b> for furnishing any of the search fee, examination fee, or the oath or declaration after the date of commencement of the national stage (37 CFR 1.492(h)).				\$ 130.00	
CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE		
Total claims	- 20 =		x \$ 50	\$	
Independent claims	- 3 =		x \$200	\$	
MULTIPLE DEPENDENT CLAIM(S) (if applicable)			+ \$360	\$	
<b>TOTAL OF ABOVE CALCULATIONS =</b>				\$	
<input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. Fees above are reduced by 1/3.				\$	
<b>SUBTOTAL =</b>				\$ 130.00	
Processing fee of <b>\$130.00</b> for furnishing the English translation later than 30 months from the earliest claimed priority date (37 CFR 1.492(i)).				\$	
<b>TOTAL NATIONAL FEE =</b>				\$	
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). <b>\$40.00</b> per property				\$	
<b>TOTAL FEES ENCLOSED =</b>				\$ 130.00	
02/22/2006 LLANDGRA 00000018 201430 10536935 01 FC:1617 130.00 DA				Amount to be refunded:	\$
				Amount to be charged:	\$ 130.00

- a. ☐ A check in the amount of \$ \_\_\_\_\_ to cover the above fees is enclosed.
- b. ☒ Please charge my Deposit Account No. 20-1430 in the amount of \$ 130.00 to cover the above fees. A duplicate copy of this sheet is enclosed.
- c. ☒ The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 20-1430. A duplicate copy of this sheet is enclosed.
- d. ☐ Fees are to be charged to a credit card. **WARNING:** Information on this form may become public. **Credit card information should not be included on this form.** Provide credit card information and authorization on PTO-2038.

**NOTE:** Where an appropriate time limit under 37 CFR 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the International Application to pending status.

SEND ALL CORRESPONDENCE TO:

Kevin Bastian  
TOWNSEND AND TOWNSEND AND CREW LLP  
Two Embarcadero Center, Eighth Floor  
San Francisco, CA 94111-3834

  
SIGNATURE

Kevin Bastian  
NAME

34,774  
REGISTRATION NUMBER

60704414 v1

Rec'd Patent 11 FEB 2005

## STIC Biotechnology Systems Branch

### RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/536,935  
Source: PCT/10  
Date Processed by STIC: 6/9/05

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK-SPENCER, TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 4.2.2 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker/chkrnote.htm>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<<http://www.uspto.gov/ebc/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. Hand Carry, Federal Express, United Parcel Service, or other delivery service (EFFECTIVE 01/14/05):  
U.S. Patent and Trademark Office, Mail Stop Sequence, Customer Window, Randolph Building, 401 Dulany Street, Alexandria, VA 22314

Revised 01/24/05

BEST AVAILABLE COPY



PCT

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/536,935

DATE: 06/09/2005

TIME: 09:38:32

Input Set : A:\082368-004400US.txt

Output Set: N:\CRF4\06092005\J536935.raw

4 <110> APPLICANT: Tsukahara, Kappei  
 5 Tsuchiya, Mamiko  
 6 Jigami, Yoshifumi  
 7 Nakayama, Kenichi  
 8 Umemura, Mariko  
 9 Okamoto, Michiyo  
 11 <120> TITLE OF INVENTION: METHOD OF SCREENING FOR COMPOUNDS THAT  
 12 INHIBIT THE ENZYMATIC ACTIVITY OF GWT1 GENE PRODUCT  
 15 <130> FILE REFERENCE: 082368-004400US  
 C--> 17 <140> CURRENT APPLICATION NUMBER: US/10/536,935  
 C--> 17 <141> CURRENT FILING DATE: 2005-05-20  
 17 <150> PRIOR APPLICATION NUMBER: PCT/JP03/14909  
 18 <151> PRIOR FILING DATE: 2003-11-21  
 20 <150> PRIOR APPLICATION NUMBER: JP 2002-339418  
 21 <151> PRIOR FILING DATE: 2002-11-22  
 E--> 23 <160> NUMBER OF SEQ ID NOS: (1) 18 ← see p. 2  
 25 <170> SOFTWARE: FastSEQ for Windows Version 4.0

## ERRORED SEQUENCES

1856 <210> SEQ ID NO: 16  
 1857 <211> LENGTH: (34) 39 shown below  
 1858 <212> TYPE: DNA  
 1859 <213> ORGANISM: Artificial sequence  
 1861 <220> FEATURE:  
 1862 <223> OTHER INFORMATION: Description of Artificial Sequence: an artificially  
 1863 synthesized primer sequence  
 1865 <400> SEQUENCE: 16  
 E--> 1866 gcacgcgattt atagcttaat gaatattctt tttct atac

Does Not Comply  
 Corrected Diskette Needed

pp 1-3

(34) 39

10536,935 2

<210> 18 *last sequence in submitted file*

<211> 60

<212> DNA

<213> *Saccharomyces cerevisiae*

<400> 18

ttatagctta atgaatattc tttttctata caagaaaacc gaattcgagc tcgtttaaac 60

*see p.3*

10/536,935

3

tgg ctt gct caa cac gga att cgt ttt cgc ctt tag

1380

Trp Leu Ala Gln His Gly Ile Arg Phe Arg Leu

450

455

460

delete

do not number stop  
coders - they do not  
code for amino acids

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/536,935

DATE: 06/09/2005

TIME: 09:38:33

Input Set : A:\082368-004400US.txt

Output Set: N:\CRF4\06092005\J536935.raw

L:17 M:270 C: Current Application Number differs, Replaced Current Application No  
L:17 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:867 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:7  
L:1395 M:351 W: Sequence data Name/Key Feature Out-of-Range, SEQ ID#: 12, CDS  
LOCATION:44..2001  
L:1399 M:351 W: Sequence data Name/Key Feature Out-of-Range, SEQ ID#: 12, CDS  
LOCATION:44..2001  
L:1459 M:351 W: Sequence data Name/Key Feature Out-of-Range, SEQ ID#: 12, CDS  
LOCATION:44..2001  
L:1463 M:351 W: Sequence data Name/Key Feature Out-of-Range, SEQ ID#: 12, CDS  
LOCATION:44..2001  
L:1519 M:351 W: Sequence data Name/Key Feature Out-of-Range, SEQ ID#: 12, CDS  
LOCATION:44..2001  
L:1523 M:351 W: Sequence data Name/Key Feature Out-of-Range, SEQ ID#: 12, CDS  
LOCATION:44..2001  
L:1866 M:254 E: No. of Bases conflict, LENGTH:Input:34 Counted:39 SEQ:16  
L:1866 M:252 E: No. of Seq. differs, <211> LENGTH:Input:34 Found:39 SEQ:16  
L:23 M:203 E: No. of Seq. differs, <160> Number Of Sequences:Input (1) Counted (18)





UNITED STATES PATENT AND TRADEMARK OFFICE

082368-004400 US  
KLB/SF / CC: DMW/SF  
UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

U.S. APPLICATION NUMBER NO. 10/536,935	FIRST NAMED APPLICANT Kappei Tsukahara	ATTY. DOCKET NO. 082368-004400US
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INTERNATIONAL APPLICATION NO. PCT/JP03/14909	
I.A. FILING DATE 11/21/2003	PRIORITY DATE 11/22/2002

20350  
TOWNSEND AND TOWNSEND AND CREW, LLP  
TWO EMBARCADERO CENTER  
EIGHTH FLOOR  
SAN FRANCISCO, CA 94111-3834

CONFIRMATION NO. 6397

371 FORMALITIES LETTER



\*OC000000017621684\*

Response Due 02/15/06  
Seq. Req. 02/15/06  
Date Mailed: 12/15/2005

### NOTIFICATION OF MISSING REQUIREMENTS UNDER 35 U.S.C. 371 IN THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US)

The following items have been submitted by the applicant or the IB to the United States Patent and Trademark Office as a Designated / Elected Office (37 CFR 1.495).

- Copy of the International Application filed on 05/20/2005
- English Translation of the IA filed on 05/20/2005
- Copy of the International Search Report filed on 05/20/2005
- Copy of IPE Report filed on 05/20/2005
- Preliminary Amendments filed on 05/20/2005
- Biochemical Sequence Diskette filed on 05/20/2005
- Biochemical Sequence Listing filed on 05/20/2005
- U.S. Basic National Fees filed on 05/20/2005
- Priority Documents filed on 05/20/2005
- Specification filed on 05/20/2005
- Claims filed on 05/20/2005
- Abstracts filed on 05/20/2005
- Drawings filed on 05/20/2005
- Paper nucleotide sequence listings filed on 05/20/2005

The applicant needs to satisfy supplemental fees problems indicated below.

The following items **MUST** be furnished within the period set forth below in order to complete the requirements for acceptance under 35 U.S.C. 371:

- Oath or declaration of the inventors, in compliance with 37 CFR 1.497(a) and (b), identifying the application by the International application number and international filing date.
- To avoid abandonment, a surcharge (for late submission of filing fee, search fee, examination fee or oath or declaration) as set forth in 37 CFR 1.492(h) of \$130 for a non-small entity, must be submitted with the

hnc

missing items identified in this letter.

# SUMMARY OF FEES DUE:

Total additional fees required for this application is **\$380** for a Large Entity:

- **\$130** Surcharge.
- A copy of the "Sequence Listing" in computer readable form has been submitted. However, the content of the computer readable form does not comply with the requirements of 37 CFR 1.822 and/or 1.823, as indicated on the attached copy of the marked -up "Raw Sequence Listing." Applicant must provide a substitute computer readable form (CRF) copy of the "Sequence Listing" and a statement that the content of the sequence listing information recorded in computer readable form is identical to the written (on paper or compact disc) sequence listing and, where applicable, includes no new matter, as required by 37 CFR 1.821(e), 1.821(f), 1.821(g), 1.825(b), or 1.825(d).
- The specification and drawings contain more than 100 pages. Applicant owes **\$250** for **20** pages in excess of **100** pages for a non-small entity.

Applicant is cautioned that correction of the above items may cause the specification and drawings page count to exceed 100 pages. If the specification and drawings exceed 100 pages, applicant will need to submit the required application size fee.

**For questions regarding compliance to 37 CFR 1.821-1.825 requirements, please contact:**

- **For Rules Interpretation, call (571) 272-0951**
- **For Patentin Software Program Help, call Patent EBC at 1-866-217-9197 or directly at 703-305-3028 / 703-308-6845 between the hours of 6 a.m. and 12 midnight, Monday through Friday, EST.**
- **Send e-mail correspondence for Patentin Software Program Help @ [ebc@uspto.gov](mailto:ebc@uspto.gov)**

**ALL OF THE ITEMS SET FORTH ABOVE MUST BE SUBMITTED WITHIN TWO (2) MONTHS FROM THE DATE OF THIS NOTICE OR BY 32 MONTHS FROM THE PRIORITY DATE FOR THE APPLICATION, WHICHEVER IS LATER. FAILURE TO PROPERLY RESPOND WILL RESULT IN ABANDONMENT.**

The time period set above may be extended by filing a petition and fee for extension of time under the provisions of 37 CFR 1.136(a).

Applicant is reminded that any communications to the United States Patent and Trademark Office must be mailed to the address given in the heading and include the U.S. application no. shown above (37 CFR 1.5)

*A copy of this notice **MUST** be returned with the response.*

DARRELL C COTTMAN

Telephone: (703) 308-9140 EXT 203

## PART 1 - ATTORNEY/APPLICANT COPY

U.S. APPLICATION NUMBER NO.	INTERNATIONAL APPLICATION NO.	ATTY. DOCKET NO.
10/536,935	PCT/JP03/14909	082368-004400US